

State of Arkansas Strategic Information Technology Plan



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Executive Overview

In recent years, state governments have increasingly come to understand the essential role of information technology (IT) in improving the effectiveness, efficiency and quality of government service delivery. Whereas government's use of information technology was once limited to supporting back office agency operations, modern technologies—such as the Internet—have transformed information technology's role into becoming a primary channel of delivering government services to citizens. As the role of information technology in government continues to evolve, a proactive approach is required to ensure state resources are wisely invested and stakeholder expectations are met. Strategic planning helps provide that proactive approach.

The goals and objectives of the Arkansas Strategic Information Technology Plan are founded upon these six basic principles of good government:

- **Efficiency**
- **Effectiveness**
- **Citizen Convenience**
- **Quality**
- **Transparency**
- **Security/Privacy**

The ultimate purpose of this plan is to incorporate these six principles in guiding the state as the best possible steward of information technology resources and investments. This plan is essentially a snapshot in time of an ongoing strategic planning process that identifies opportunities and engages initiatives to improve the effectiveness of how the state evaluates, selects, deploys and manages information technologies. As a result of this process, these three goals have been established to provide guidance for the state:

- **Continuously improve the delivery of information technology products and services to meet the needs of State government and ultimately Arkansas citizens**
- **Encourage and support secure, innovative, and collaborative approaches to providing government services**
- **Promote wise management of Arkansas' information technology resources**

To support these goals, twelve objectives have been established to guide the process of identifying opportunities, developing, plans, and implementing programs to improve the delivery of government service .

Essential to the success of this strategic plan is gaining the understanding and acceptance of key stakeholders. Therefore, this plan provides supporting information that details the statutory basis, purposes, and roles of information technology in state government; the purpose and role of this plan; the process taken to develop the plan; and the strategic objectives resulting from the planning process.

It is also important to understand that this Arkansas Strategic Information Technology Plan is one part of several planning instruments that guide the state's investments in information technology. Whereas this plan focuses on strategic directives that affect all state agencies, individual agency information technology plans address tactical initiatives targeted to address specific opportunities. During the development of this plan, state agencies have had the opportunity to provide input, advice and recommendations. This inclusive approach has served to strengthen the plan and foster understanding and acceptance across state agencies.

Statutory Basis and Governance

Historical Overview

For more than 25 years, Arkansas' policymakers have taken proactive, innovative, and progressive steps to support the effective management of the state's IT investments. With broad support within the legislature and the administration, *Act 1042 of 2001* established the policy-focused management structure. This new structure consisted of an Executive Chief Information Officer (ECIO), a CIO Council, and an Information Technology Oversight Committee (see *Appendix B* for more details). This legislation emphasized a policy-based approach to information technology management, a representative form of information technology governance, the importance of securing state information technology investments, and the establishment of a statewide record retention policy.

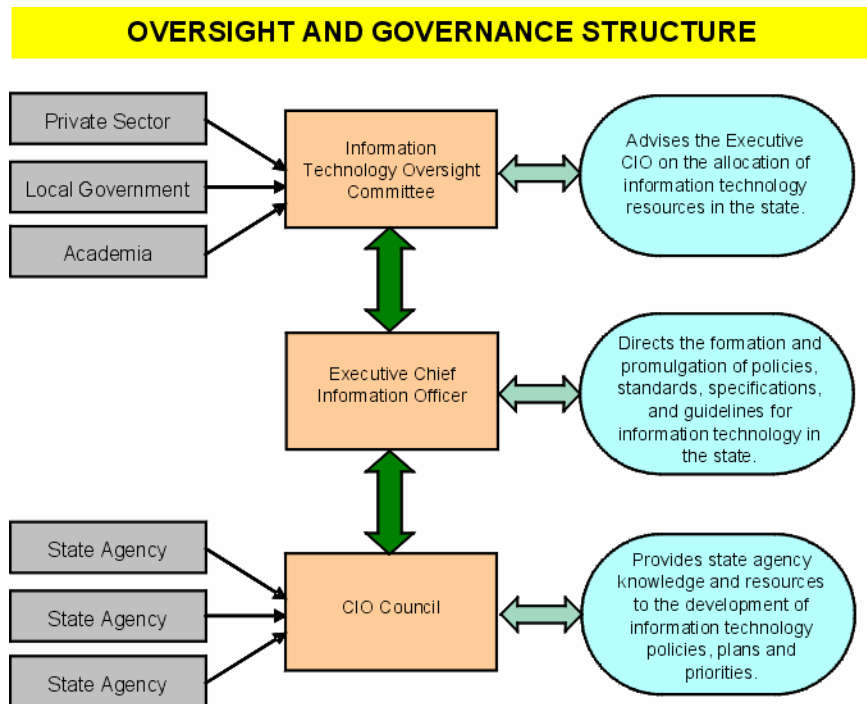


Figure 1

Central Policy / Distributed Deployment

As determined by an interim legislative study conducted in 1999-2000, the key to ongoing, continuous improvement in statewide information technology management was the separation of information technology policy development from information technology operations. Information technology had considerably permeated a majority of agency business processes and had become an essential, required, critical, and inseparable component in the effective delivery of government services. This separation allowed the information technology policy-making process to focus on meeting the business needs of agencies in lieu of focusing on one technology or another. In other words, the development of policies, guidelines, and best practices would be best developed and promulgated when unencumbered by information technology operational constraints. Figure 2 shows the relationship of state agencies, information technology policies, and information technology operations.

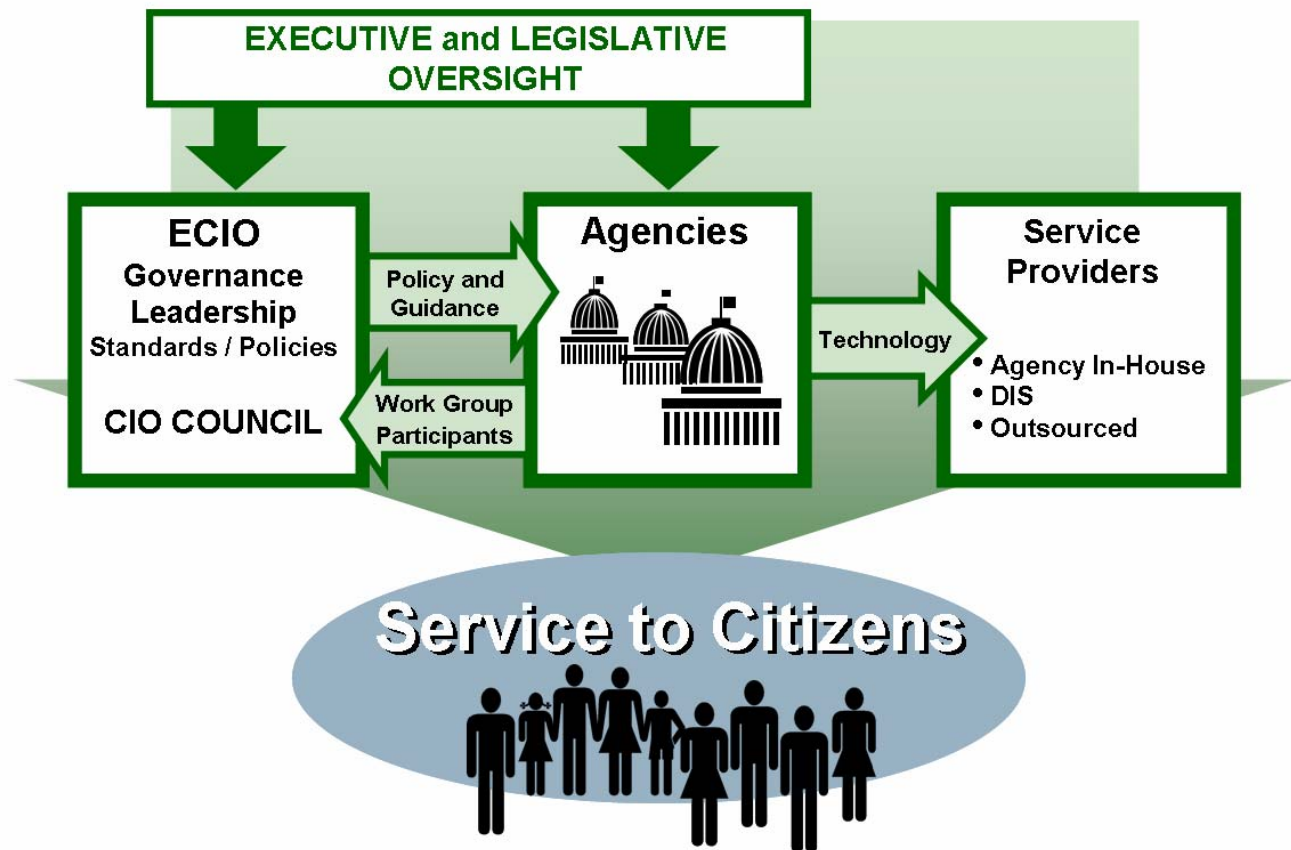


Figure 2

Agency Representation

One theme that runs consistently through *Act 1042 of 2001* is the assurance that all state agencies will not only have a voice but will also actively participate in the development of policies, strategies and direction.

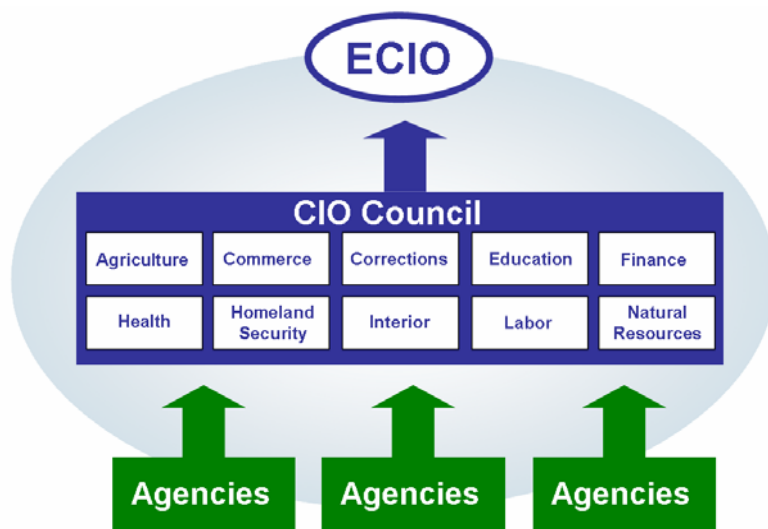


Figure 3

Representation of state agencies—established primarily according to similar policy areas—follows a two-tiered approach, as shown in Figure 3. *Appendix C* has a complete list of CIO Council representatives and the agencies each member represents.

Strategic Foundation

Information Technology's Purpose - Arkansas Citizen, Business and Stakeholder Expectations

The purpose of any technology is to improve the effectiveness by which organizations convert limited resources into goods and services. Citizens and businesses expect government to provide the same high level of service that is delivered in the marketplace. Financial, telecommunications and other service-oriented industries enable customers to get services they desire when they want them, where they need them, and in a manner convenient for their lifestyle. These services are expected to be delivered at the convenience of the user without respect to internal government structures, organizations or jurisdictions. Stakeholder expectations are reflected in the following six principles listed below. It is important that state agencies select IT initiatives that relate to one or more of these six principles:

- Information technology will improve the efficiency and quality of government operations
- Information technology will improve the effectiveness through which government services are delivered
- Information technology will improve stakeholder convenience in the interaction with government
- Information technology will improve the quality of information upon which policy-makers act
- Information technology will improve the transparency of government and the policy making process
- Information technology will ensure the security and privacy of sensitive data

These six principles serve as the ultimate goals of information technology initiatives and direct the state's utilization of information technology resources.

Strategic Information Technology Plan - Purpose, Roles and Relationships

It is the purpose of this Arkansas Strategic Information Technology Plan to provide guidance to state agencies in leveraging the enabling capabilities of information technology to meet agency missions and mandates. This plan does differ from traditional strategic plans in that it does not—and cannot—stand alone. It must be used in conjunction with agency strategic plans as well as with agency information technology plans. The relationships shown in Figure 4 demonstrate how each of these plans is a critical link in the chain of supporting agency operations through information technology.

The plan serves as the principal guide agencies use as they develop their agency's biennial IT plans. It provides timely, pertinent, and cross-agency guidance for the coordinated use of IT resources.

INFORMATION TECHNOLOGY PLANS - ROLES AND RELATIONSHIPS -

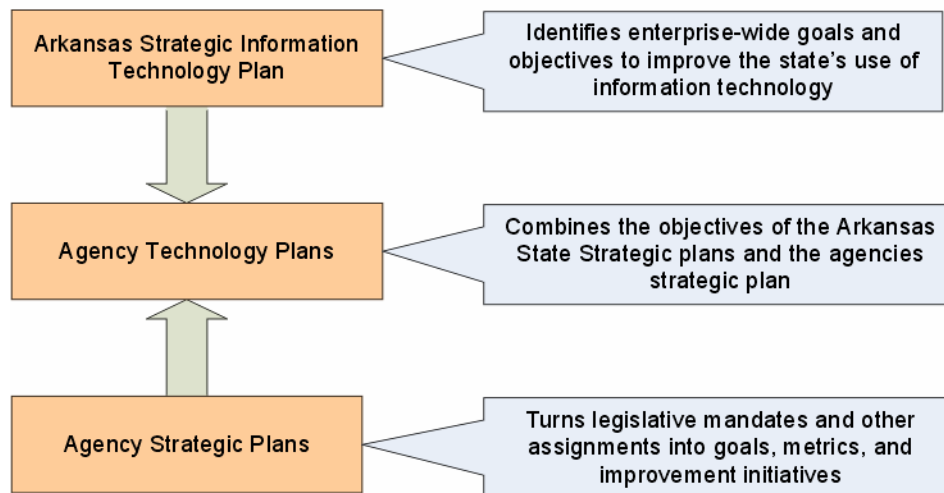


Figure 4

Success Factors

Successful implementation of this plan depends on the following things:

- Adoption of the plan, its principles and initiatives by policymakers, state leadership and agency management
- Long-term tracking and status reporting by ECIO to policy makers, state leadership and agency management
- Allocation of necessary resources
- Capable information technology workforce
- Inter-agency cooperation

Strategic leadership is necessary to guide information technology throughout state government in order to meet expectations of all who interact with government. The state can leverage information technology for the benefit of all.

Intended Audience of the Plan

The Arkansas Strategic Information Technology Plan is necessary for providing guidance to all levels of state government. Arkansas citizens, businesses and visitors are the state's most important customers. The primary focus of the plan is how information systems can improve efficiency, effectiveness and the quality of services to all those who interact with Arkansas government.

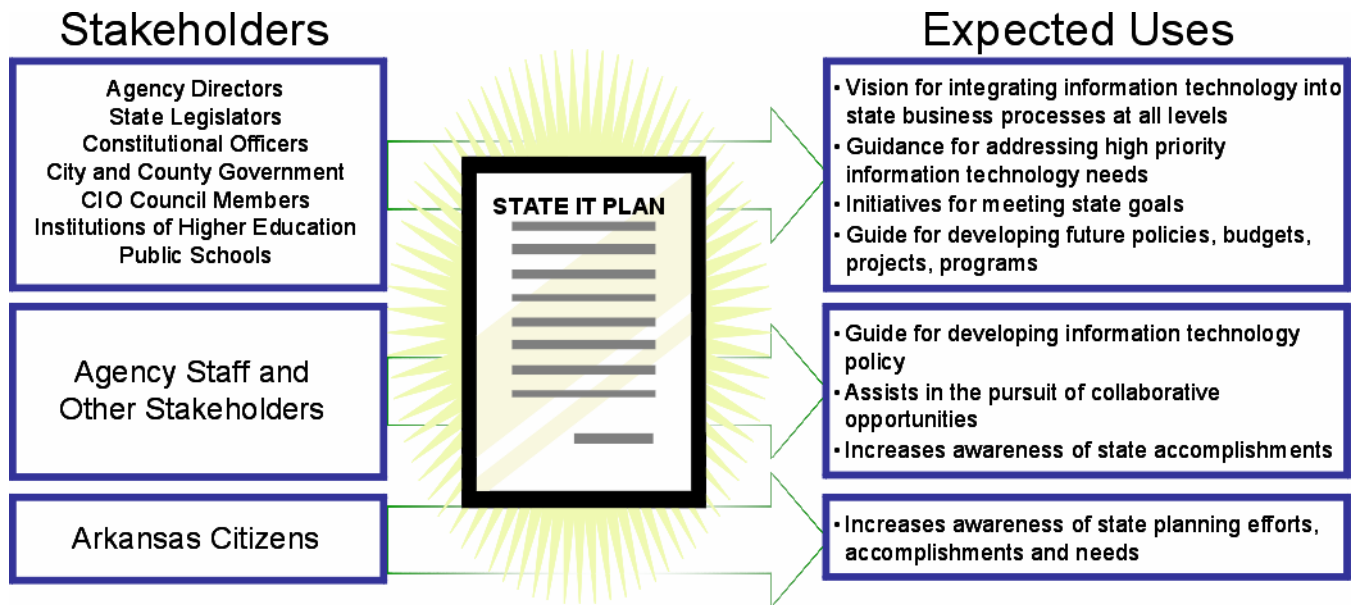


Figure 5

Direction

Overview

Six basic principles of good government are: efficiency, effectiveness, convenience, quality, transparency and security/privacy. The overall purpose of the Arkansas Strategic Information Technology Plan is to provide direction, focus and guidance as the gap between the current and future states is narrowed. Strategic objectives are established that give general direction toward the goal of realizing the desired future state. These objectives are judged against the overarching purposes for IT: improve efficiency, effectiveness and the quality of services for all who interact with the state.

Strategic Objectives

Goal 1 - Continuously Improve the Delivery of Information Technology (IT) Products and Services to Meet the Needs of State Government and Ultimately Arkansas Citizens

Objective	Meets Desired Future State	Issues Identified in Current State
Joint ownership solutions are considered during IT plan development and prior to investment decisions	<ul style="list-style-type: none"> Inter-agency collaboration and sharing in the utilization of information systems and data Multi-state collaboration and sharing—where it is possible/advantageous—to accomplish increased efficiencies using new approaches and inter-state projects 	<ul style="list-style-type: none"> Funding restricted to benefit specific programs or projects Data confidentiality requirements Balancing agency , State and national priorities
A mature Enterprise Architecture guides IT	<ul style="list-style-type: none"> A process for agency procurement of IT resources that complies with state policy, standards and guidelines Clearly established criteria for the evaluation and prioritization of proposed projects Inter-agency collaboration and sharing in the utilization of information systems and data 	<ul style="list-style-type: none"> Legacy system investments Funding restricted to benefit specific programs or projects Data confidentiality requirements Balancing agency , State and national priorities
The electronic face of government meets and exceeds user expectations	<ul style="list-style-type: none"> Leadership that understands and utilizes the full capacity of technology to increase efficiency in state government Transactions and information provided by government that are available at the convenience of the user The delivery of government services to citizens is convenient, seamless and user-friendly, no matter whether it is a local, county or state application. 	<ul style="list-style-type: none"> Increased expectations for citizen on-line services Limited access for some users Cultural and educational barriers to acceptance
Resources are provided for the implementation of projects and for mandated policies, standards and procedures	<ul style="list-style-type: none"> Statewide mechanism for ensuring effectiveness in IT project funding Effective statewide mechanisms in place for the review of IT spending 	<ul style="list-style-type: none"> Limited time and resources for in-depth planning, ongoing measurement, formal adjustment Program-based IT funding IT spending not aligned with business strategy Cost of information technology training

**Goal 2 - Encourage and Support Secure, Innovative, and Collaborative Approaches
to Providing Government Services**

Objective	Meets Desired Future State	Issues Identified in Current State
A stable IT workforce applies critical thinking skills to improve agency operations	<ul style="list-style-type: none"> ▪ A shared-use training provision offered to government staff from an entity that understands commonly shared business processes relevant to Arkansas government's business operations ▪ Agencies with adequate in-house or contracted technical staff to support their information technology systems operations and integration into business process efficiencies 	<ul style="list-style-type: none"> ▪ Changing state workforce ▪ State pay plan limitations ▪ Recruitment and retention of skilled workforce ▪ Work load exceeds available workforce resources
IT staff is well qualified, well trained and valued	<ul style="list-style-type: none"> ▪ Agencies are able to attract and retain employees with information technology skills through competitive compensation ▪ Information technology staff has opportunities to learn current technological skills 	<ul style="list-style-type: none"> ▪ Changing state workforce ▪ State pay plan limitations ▪ Recruitment and retention of skilled workforce ▪ Work load exceeds available workforce resources ▪ Cost of information technology training
IT initiatives are a recognized first solution for state government business practices	<ul style="list-style-type: none"> ▪ Leadership understands the value of using technology to make business processes more efficient and effective 	<ul style="list-style-type: none"> ▪ Lack of knowledge of IT ▪ Increased risk
Project management methodologies are embraced to ensure IT deployment success	<ul style="list-style-type: none"> ▪ Leadership that understands the value of adhering to common project management methodology for all state government information technology projects 	<ul style="list-style-type: none"> ▪ Limited time and resources for in-depth planning, ongoing measurement, formal adjustment ▪ Program-based IT funding ▪ IT spending not aligned with business strategy ▪ Cost of information technology training ▪ Competing priorities
Public organizations work together to secure and protect resources	<ul style="list-style-type: none"> ▪ Active participation of all state agencies in a statewide perimeter security system to protect the state's resources ▪ Procedures and processes that assure appropriate accessibility, integrity, and confidentiality for all information and resources held by the government 	<ul style="list-style-type: none"> ▪ External and internal threats to state IT resources ▪ Increasing number of security mandates ▪ Protecting Confidential information is critical / legislatively mandated
Emerging technologies will be analyzed and evaluated for effective utilization within state government	<ul style="list-style-type: none"> ▪ Leadership understands the value of using technology to make business processes more efficient and effective 	<ul style="list-style-type: none"> ▪ Increased expectations for citizen on-line services ▪ Increased risk

Goal 3 - Promote Wise Management of Arkansas' IT Resources

Objective	Meets Desired Future State	Issues Identified in Current State
Portfolio management guides IT investment	<ul style="list-style-type: none"> Clearly established criteria for the evaluation of proposed projects for prioritization A project evaluation process that clarifies a project's merits and alignment with business needs that can enhance the likelihood of its being understood and funded A statewide mechanism for ensuring effectiveness in IT project funding 	<ul style="list-style-type: none"> Isolated decision making Program-based IT funding IT spending not aligned with business strategy Restrictions on budgetary flexibility versus rapidly changing technology
The reporting of IT spending is uniform and easily presented	<ul style="list-style-type: none"> Effective statewide mechanisms in place for the review of IT spending Key stakeholders have timely access to aggregate views of IT resources and allocations 	<ul style="list-style-type: none"> Limited time and resources for in-depth planning, ongoing measurement, formal adjustment The value of IT is not always obvious to leadership IT spending is not aligned with business strategy

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Appendix A – Historical Overview

Historical Overview

For more than 25 years, Arkansas' policymakers have taken proactive, innovative and progressive steps to support the effective management of the state's IT investments. In the late 1970s, the legislature realized that information technology was growing beyond the traditional scope of supporting administrative transactions and created a stand-alone agency, the Department of Computer Services (DCS), to provide those services. In 1997, the 81st General Assembly realized that new technologies such as networks and the Internet were beginning to dramatically transform the means and methods of delivering government services. As a result, the legislature reorganized state government information technology resources.

During the 1999-2000 interim period, the Legislative Joint Committee for Information Technology and Advanced Communications commissioned a comprehensive study of the state's approach to information technology management. The study's primary finding was that information technology had considerably permeated a majority of agency business processes and had become an essential, required, critical and inseparable component in the effective delivery of government services. As a result of this finding, the study recommended the development of a strong, policy-focused organizational structure in which the development of policies, guidelines and best practices could be developed and promulgated, unencumbered by information technology operational constraints.

As a follow-up to the study, several information technology related bills were introduced in the 2001 General Session. With broad support within the legislature and the administration, the keystone legislation, *Act 1042 of 2001*, established the policy-focused management structure recommended by the study. This new structure consisted of an Executive Chief Information Officer (ECIO), a CIO Council, and an Information Technology Oversight Committee (see *Appendix B* for an overview of this structure, along with primary duties). This legislation emphasized a policy-based approach to information technology management, a representative form of information technology governance, the importance of securing state information technology investments, and the establishment of a statewide record retention policy.

Appendix B – Statutory Authority

Statutory Authorities

In addition to the summary responsibilities shown in Figure 1 on Page 5, *Act 1042 of 2001* assigned the Executive Chief Information Officer, the CIO Council and state agencies specific authorities and responsibilities.

The Executive CIO

- Directs the formulation and promulgation of policies, standards, specifications and guidelines for information technology in the state.
- Ensures that all state agencies shall have input into the formation of these policies, standards, specifications and guidelines.
- Establishes representative working groups to assist in the formulation of policies, standards, specifications and guidelines, and assures that all agencies have the opportunity to review and comment.
- Oversees the development of legislation, rules and regulations affecting electronic records management and retention, privacy, security and related issues.
- Directs the State Security Office to monitor information resource security issues, develop and promulgate information technology security policy for state agencies and coordinate all security measures which could be used to protect resources by more than one (1) governmental entity.
- Directs the development of policies and procedures that state agencies follow in developing individual agency information technology plans, technology-related budgets and technology project justification.
- Establishes criteria for enterprise projects, reviews enterprise project plans and budget requests, and recommends priorities to the CIO Council.
- Develops plans and implementation strategies to promulgate state-level missions, goals and objectives for the use of information technology.
- Reviews procurements to ensure conformity with information technology policies and standards, state-level plans and implementation strategies.
- Advises state agencies in acquiring information technology service as well as advises on information technology contracts and agreements.
- Solicits, receives and administers funds from public and private entities to be used for the purchase of information technology resources.
- Oversees the duties previously assigned to the State Records Commission under *Arkansas Code 13-4-105* as to electronic records.

The CIO Council

- Advises the Executive CIO on information technology resource usage and prioritization.
- Provides leadership in coordinating information technology in the state.
- Assists in establishing a prioritization system for state investment in enterprise projects.
- Assists in the development of policies and procedures that state agencies and institutions of higher learning follow in developing information technology plans and technology-related budget requests.
- Advises on the modification of the State Information Technology Plan.
- Creates and manages a method to evaluate agency requests to fund information technology projects. The evaluation criteria will be based on the return on investment of the project and the linkage of the project to the agency's business objectives.
- Establishes standards and methodologies to ensure that good business case analysis is required from state agencies prior to allocation of funds.
- The business case analysis must identify total life-cycle costs (beginning to end of the project) to include—but not be limited to—consultant needs, required hardware or software support, ongoing support and maintenance, education and training, network bandwidth capacity, etc.
- All information technology projects shall be evaluated on the basis of the return on investment of the project, the value-added services and the compatibility with the state enterprise architecture.
- The evaluation method shall verify the link between the agency's business objectives and the agency's information technology strategy.
- The business case analysis necessary to make the appropriate determination shall include line items to identify staff resources required for creating the interfaces to the state's core infrastructure so that interoperability of all newly acquired technologies can be accomplished within the life cycle of the project.

State Boards, Commissions, Agencies, and Institutions of Higher Education

- Advise the Executive CIO in advance of their anticipated usage needs for the state core information technology infrastructure to facilitate network capacity planning.
- Consult and cooperate with the Executive CIO in the formation and implementation of security policies for the state core information technology infrastructure.
- Adopt all applicable policies, standards, specifications and guidelines.
- Abide by the information technology project justification process developed by the CIO Council.
- Seek existing applications or technologies for information technology projects before proposing the development of new applications.

Appendix C - CIO Council Representation

The CIO Council serves as the primary formal conduit of communications between the Executive Chief Information Officer and state agencies. As required by legislation, a method has been established to ensure each state agency has representation on the CIO Council. Agencies have been grouped together by common interest, size or jurisdiction. A summary of the member representation is available at:

http://www.cio.state.ar.us/CIO_Council/rep.html